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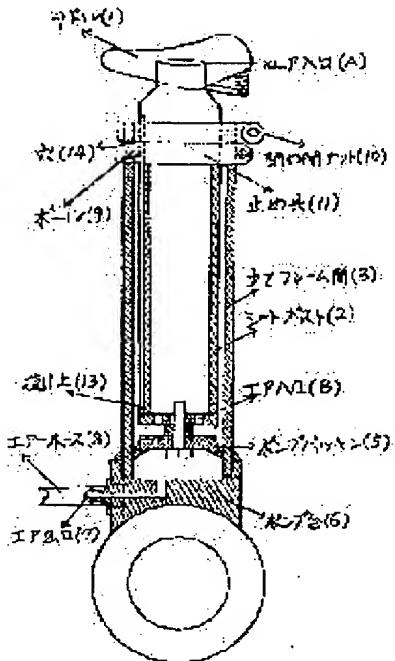
(21)Application number : 11-188044 (71)Applicant : DOI TAKASHI
(22)Date of filing : 28.05.1999 (72)Inventor : DOI TAKASHI

(54) BICYCLE WITH AIR PUMP

(57)Abstract:

PROBLEM TO BE SOLVED: To blow up air into a tire at any time and anywhere by pumping air from a vehicle body when air pressure for the tire of a bicycle is needed.

SOLUTION: A seat post 2 of a bicycle is made long, an air inlet A is provided on the upper end and a head bored air inlet B is packed at the lower end of the seat post 2 mounted with a saddle, and a pump packing 5 is provided below the air inlet B. A slip prevention groove is provided on the longitudinal surface of the seat post 2, the seat post 2 is inserted into a vertical frame cylinder 3 having a hole 14 on the upper part, a ball 9 is inserted into the hole, and the outer part is fixed by a fixing tool 11. When a saddle is fully pulled, a lock 13 and the ball are brought into contact with each other to prevent the seat post from being further projected. A closing and opening nut 10 is provided on a seat pin 4 in order to smooth the vertical movement of the upper part of the vertical frame cylinder and the seat post, a pump table 6 is provided on the bottom part of the vertical frame cylinder, and an air hose 8 is inserted into an air outlet 7 and fixed to a lateral frame of the bicycle.



LEGAL STATUS

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CLAIMS

[Claim(s)]

[Claim 1] Use the body **** frame cylinder (3) and seat pillar (2) of a bicycle, and make air. Extend a seat pillar (2) and a upper limit is stuffed at the air (entrance A) soffit forehead. a hole -- preparing -- an air entrance (B) -- pump packing (5) was prepared in the bottom of it -- And it escapes to the vertical surface of a seat pillar (2), and is a prevention slot (12) is prepared and stood, a hole (14) is established in the upper part of a frame cylinder (3), and a ball (9) is put in there, and when it stops by stops (11) outside and a saddle (1) is lengthened to the limit). In order to carry out smooth [of the vertical movement], the upper part and the seat pillar (2) of a frame cylinder (3) by standing, so that may escape with a ball (9), it may stop, (13) may be committed and it may not come out any more The bicycle with a ** air pump by which it shut to the seat pillar pin (4), and the aperture nut (10) is prepared, and it stands and a pump base (6) is established in the pars basilaris ossis occipitalis of a frame cylinder (3), and an air hose (8) is put in an air outlet (7), and it does not come to it.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001] [Field of the Invention] This invention uses the body **** frame cylinder and seat pillar of a bicycle, and relates to an injecting [if needed / at any time / anywhere / air / into a tire]—for air which can make air bicycle.

[0002] Although it carries out at the bicycle shop or a house when a bicycle injects air into a tire from the [conventional technical] former, when having ridden. Although it is ***** in the bicycle shop, noticing that there is little ** air or [whether it rides as it is and returns to a house and] Looking for the bicycle shop, if it goes to other places, although it is acting as Mr. [bicycle shop], if it is the circumference of a house, although air is poured in [serious] The bicycle which is also in those who ride as it is and throw away to a station since cost will also start, if a tire and CHUPU take out to both and the repair over which it mourns while riding and searching, and extracts the seat pillar of the saddle of a bicycle simply, which is seen here and there and which cannot ride.

[0003] [Object of the Invention] This had the following faults.

(**) Only the regular place is made when the tire of a bicycle needs air.

(**) As for a bicycle, it is inconvenient to always carry an air pump.

(c) Even if it notices, ride on the spot with little air of the tire of a bicycle which cannot pour in air on that spot, and a tire and CHUPU will hurt also with both and will not last long. The person who throws away since cost starts a tire and CHUPU hurting and issuing repair is also in a used car.

(**) Since the saddle was stolen and those who will be simply stolen since the saddle and seat pillar of a bicycle are not attached in crime prevention equipment and who ride cannot ride, they are also one from which this which is abandoned on that occasion became a big problem socially.

(**) It is ***** that it is likely to escape from a seat pillar when the saddle of a bicycle rides on a tall person.

this invention is made in order to remove these faults.

[0004] the upper limit of a portion which lengthened the seat pillar (2) of a [The-means-for-solving-a-technical-problem] bicycle and which put the saddle (1) — the air (entrance A) soffit forehead — putting — a hole — preparing — an air entrance (B) — pump packing (5) was prepared in the bottom of it — and . ** which falls out to the vertical surface of a seat pillar (2), prepares a prevention slot (12), stands this, puts and does not come in a frame cylinder (3), A ball (9) is put into the hole (14) which stood and established the hole (14) in the upper part of a frame cylinder (3). It stops by stops (11) to the **** exterior. a saddle (1) to the limit by having escaped and stopped, having stopped by (13), when lengthening, being unable to lengthen any more, but standing, in order to carry out smooth [of the vertical movement], the upper part and the seat pillar (2) of a frame cylinder (3) Seat pillar pin (4) It shut and ** and the air hose (8) for which it stands and a pump base (6) is established in the pars basilaris ossis occipitalis of a FUREMUTO cylinder (3), and an air hose (8) is put [air hose] in an air outlet (7), and it does not come to it prepared [the aperture nut (10)] were stopped to the transverse frame of a bicycle. this invention is a bicycle with an air pump which consists of the above composition.

[0005] The example of this invention is explained below [the gestalt of implementation of invention]. First, a seat pillar pin (4) is rotated reversely, then, it shuts, an aperture nut (10) stands and the upper part of a frame cylinder (3) is opened. When lengthening a saddle (1) upwards, a seat pillar (2) and pump PAKIN (5) are connected with each, a seat pillar (2) is stood, and it does not separate from a frame cylinder (3). If it escapes and stops to the soffit of the omission prevention slot (12) on the seat pillar (2) and it is reached (13), into the hole (14), it stands, and a seat pillar (2) will fall out, and it will stop, and will be stopped and made the upper part of a frame cylinder (3) by stops (11) at the exterior of (13), contact, and the pole (9), and lengthening sheet POITO (2) more than this. And if the upper and lower sides are moved instead of a saddle (1) being the handle of a pump, it absorbs and stands to the upper limit of a seat pillar (2) from an air entrance (A) to a soffit air entrance (B), and high-pressure air is generated in the cylinder of a frame cylinder (3), it sends into an air hose (8) from the air outlet (7) of a pump base (6), and this is injected into the tire of a bicycle. This inventions should be the above structures, and when you use this invention, stop a bicycle first, stand a stunt and lock a stunt. And in order to remove an air hose (8) from the transverse frame of a bicycle, and to insert into the inlet of a tire, and to loosen a seat pillar pin (4) and to carry out smooth [of the "reverse rotation" vertical movement], it shuts, an aperture nut (10) stands and the upper part of a frame cylinder (3) is opened. And when use the slight heaviness of a bicycle, a saddle (1) makes it the handle of a pump, both hands are grasped approximately and the upper and lower sides are moved, it is. It absorbs up from an air entrance (A) to a soffit air entrance (B) to the upper limit of a seat pillar (2), and high-pressure air can be generated in the cylinder of a frame cylinder (3), and it can send into an air hose (8) from the air outlet (7) of a pump base (6), and can pour into a tire.

[0006] there is little air of the tire of a [effect-of-the-invention] bicycle --- if it notices, air can be poured in on that spot It can save also at the cost which does not need to feel a pain [tube / a tire and] and which can last long. those who fix the tire of a bicycle personally --- ** --- if --- it is very convenient Since the seat pillar of a bicycle formed crime prevention equipment, a saddle is not stolen simply. the seat pillar of a bicycle should be extended and carry out it --- since it is very much, any tall persons can ride those who go to swim in a bicycle --- ** --- if --- air can be poured into the ring which is helpful also to this bicycle this invention brings about these effects.

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TECHNICAL FIELD

[Field of the Invention] This invention uses the body **** frame cylinder and seat pillar of a bicycle, and relates to an injecting [if needed / at any time / anywhere / air / into a tire]-for air which can make air bicycle.

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PRIOR ART

Although it carries out at the bicycle shop or a house when a bicycle injects air into a tire from the [conventional technical] former, when having ridden. Although it is ***** in the bicycle shop, noticing that there is little ** air or [whether it rides as it is and returns to a house and] Looking for the bicycle shop, if it goes to other places, although it is acting as Mr. [bicycle shop], if it is the circumference of a house, although air is poured in [serious] The bicycle which is also in those who ride as it is and throw away to a station since cost will also start, if a tire and CHUPU take out to both and the repair over which it mourns while riding and searching, and extracts the seat pillar of the saddle of a bicycle simply, which is seen here and there and which cannot ride.

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EFFECT OF THE INVENTION

there is little air of the tire of a [effect-of-the-invention] bicycle -- if it notices, air can be poured in on that spot It can save also at the cost which does not need to feel a pain [tube / a tire and] and which can last long. those who fix the tire of a bicycle personally -- ** -- if -- it is very convenient Since the seat pillar of a bicycle formed crime prevention equipment, a saddle is not stolen simply. the seat pillar of a bicycle should be extended and carry out it -- since it is very much, any tall persons can ride those who go to swim in a bicycle -- ** -- if -- air can be poured into the ring which is helpful also to this bicycle this invention brings about these effects.

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TECHNICAL PROBLEM

[Object of the Invention] This had the following faults.

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(**) As for a bicycle, it is inconvenient to always carry an air pump.

(c) Even if it notices, ride on the spot with little air of the tire of a bicycle which cannot pour in air on that spot, and a tire and CHUPU will hurt also with both and will not last long. The person who throws away since cost starts a tire and CHUPU hurting and issuing repair is also in a used car.

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MEANS

the upper limit of a portion which lengthened the seat pillar (2) of a [The-means-for-solving-a-technical-problem] bicycle and which put the saddle (1) — the air (entrance A) soffit forehead — putting — a hole — preparing — an air entrance (B) — pump packing (5) was prepared in the bottom of it — and . ** which falls out to the vertical surface of a seat pillar (2), prepares a prevention slot (12), stands this, puts and does not come in a frame cylinder (3). A ball (9) is put into the hole (14) which stood and established the hole (14) in the upper part of a frame cylinder (3). It stops by stops (11) to the **** exterior. a saddle (1) to the limit by having escaped and stopped, having stopped by (13), when lengthening, being unable to lengthen any more, but standing, in order to carry out smooth [of the vertical movement], the upper part and the seat pillar (2) of a frame cylinder (3) Seat pillar pin (4) It shut and ** and the air hose (8) for which it stands and a pump base (6) is established in the pars basilaris ossis occipitalis of a FUREMUTO cylinder (3), and an air hose (8) is put [air hose] in an air outlet (7), and it does not come to it prepared [the aperture nut (10)] were stopped to the transverse frame of a bicycle. this invention is a bicycle with an air pump which consists of the above composition.

[0005] The example of this invention is explained below [the gestalt of implementation of invention]. First, a seat pillar pin (4) is rotated reversely, then, it shuts, an aperture nut (10) stands and the upper part of a frame cylinder (3) is opened. When lengthening a saddle (1) upwards, a seat pillar (2) and pump PAKIN (5) are connected with each, a seat pillar (2) is stood, and it does not separate from a frame cylinder (3). If it escapes and stops to the soffit of the omission prevention slot (12) on the seat pillar (2) and it is reached (13), into the hole (14), it stands, and a seat pillar (2) will fall out, and it will stop, and will be stopped and made the upper part of a frame cylinder (3) by stops (11) at the exterior of (13), contact, and the pole (9), and lengthening sheet POITO (2) more than this And if the upper and lower sides are moved instead of a saddle (1) being the handle of a pump, it absorbs and stands to the upper limit of a seat pillar (2) from an air entrance (A) to a soffit air entrance (B), and high-pressure air is generated in the cylinder of a frame cylinder (3), it sends into an air hose (8) from the air outlet (7) of a pump base (6), and this is injected into the tire of a bicycle. This inventions should be the above structures, and when you use this invention, stop a bicycle first, stand a stunt and lock a stunt. And in order to remove an air hose (8) from the transverse frame of a bicycle, and to insert into the inlet of a tire, and to loosen a seat pillar pin (4) and to carry out smooth [of the "reverse rotation" vertical movement], it shuts, an aperture nut (10) stands and the upper part of a frame cylinder (3) is opened. And when use the slight heaviness of a bicycle, a saddle (1) makes it the handle of a pump, both hands are grasped approximately and the upper and lower sides are moved, it is. It absorbs up from an air entrance (A) to a soffit air entrance (B) to the upper limit of a seat pillar (2), and high-pressure air can be generated in the cylinder of a frame cylinder (3), and it can send into an air hose (8) from the air outlet (7) of a pump base (6), and can pour into a tire.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the sectional side elevation of this invention.

[Drawing 2] It is the cross section of the transverse plane of this invention.

[Drawing 3] It is the cross section of the rear face of this invention.

[Description of Notations]

- (1) Saddle
- (2) Seat pillar
- (3) Stand and it is a frame cylinder.
- (4) Seat pillar pin
- (5) Pump packing
- (6) Pump base
- (7) Air outlet
- (8) Air hose
- (9) Ball
- (10) Shut and it is an aperture nut.
- (11) Stops
- (12) Omission prevention slot
- (13) Stop escaping.
- (14) Hole
- (A) Air entrance
- (B) Air entrance

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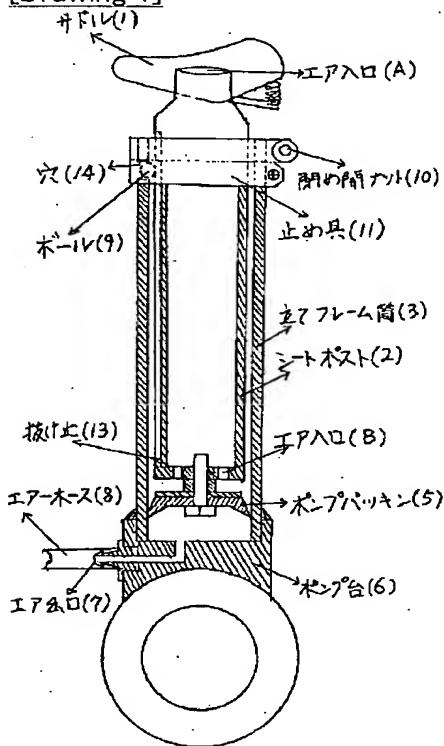
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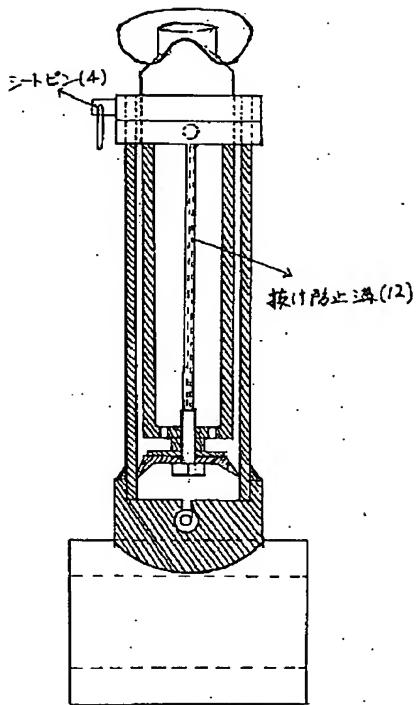
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DRAWINGS

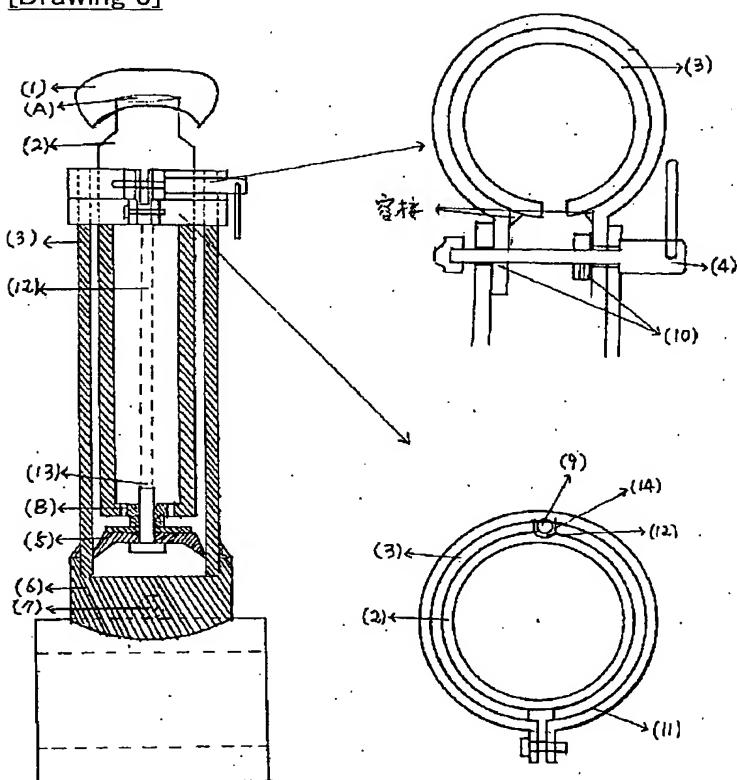
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Translation done.]